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A PURPLE COLOR FORM OF PITCHER'S THISTLE

Edward G. Voss
University of Michigan Herbarium
North University Building
Ann Arbor, Michigan 49109-1057

ABSTRACT. *Cirsium pitcheri* (Compositae), a thistle endemic to the sandy shores and dunes of lakes Michigan, Huron, and Superior, has hitherto been known to have heads only pale (white or cream) in color. A new form discovered at the north end of Lake Michigan has rich magenta corollas of a shade like that of the usual form of *C. vulgare*. This phenomenon is the reverse of the more usual discovery of a pale (or albino) form of a normally colored species.

Pitcher's Thistle, *Cirsium pitcheri* (Eaton) Torr. & A. Gray (Compositae), was originally found "by Dr. Zina Pitcher, on the great sand banks of Lake Superior" (Eaton 1829, p. 180). Amos Eaton admitted, however, that his specimen (and hence the type, apparently no longer extant) "was collected by Dr. E. James, at Lake Huron". Besides the Grand Sable dunes, which remain the only known site on the south shore of Lake Superior, the species occurs at one place on the north shore, and on various dunes and beaches along lakes Huron and Michigan. As a species endemic to the Great Lakes shores, it has been officially listed as threatened under Michigan law since 1980 and federal law since 1988.

Eaton said nothing of flower color, although Torrey and Gray (1843, p. 456) said "flowers ochroleucous." And indeed, subsequent authors have invariably declared the flowers to be white, cream-colored, yellowish white, or similarly pale—as in its nearest relative, *C. canescens* Nutt. (see Loveless & Hamrick 1988). I find no published mention of any other color form [other than a brief last-minute addition in *Michigan Flora Part III* (Voss 1996)]. Imagine our surprise, therefore, when C. Eric Hellquist and I came upon plants with deep magenta heads growing (along a federal highway!) with others of normal pale color—a reversal of the usual minor discovery of a white-flowered form in an ordinarily colored species. The heads in this population are as deep and rich red-purple as is normal in *C. vulgare* (Savi) Ten. and *C. muticum* Michx. Otherwise, the plants seem identical to typical *C. pitcheri*: e.g., large achenes (ca. 7 mm), corolla tubes shorter than in *C. vulgare*, spines absent on margins or surfaces of leaves—except a short one at the apex of each slender leaf lobe; and leaves (especially beneath), stems, and peduncles with the typical white tomentum of normal plants.

We discovered this population in 1995 southeast of the Brevort River in Mackinac County, Michigan, at the north end of Lake Michigan (or west end of the Straits of Mackinac, presumably within 15 miles or so from the type locality of the species; see Voss 1956, p. 24). There were three large bushy plants here, at a spot frequently trampled by tourists heading for the extensive beach. Tabulating the number of individuals is difficult, for some plants may have finished flowering or be too young at the time of counting (the species is perennial but monocarpic), and it is of course impossible to determine the flower color of the numerous seedlings and young individuals in the vicinity. However, in 1996 three purple-headed plants were again noted; in 1997 there were 7; in 1998, 17; and in 1999, 44. Always there were at least as many cream-headed plants plus many young individuals, and

occasional intermediate pink-headed ones. Then in 2000 there was a crash. I could find only 5 purple-headed individuals (plus some cream and immature ones). The cause was presumably extensive grading along U.S. Highway 2, scraping the dunes, and decimating this protected species and its as yet undescribed color form at this site. With luck, it will rebound; dunes, after all, are naturally disturbed (though not by heavy equipment). Some disturbance is in fact required for maintenance of this species (Hamzé & Jolls 2000).

In the meantime, it seems well to provide a name for this striking form of an endemic species:

Cirsium pitcheri forma **magenteum** E. G. Voss, f. nov.—TYPE: MICHIGAN. Mackinac Co.: disturbed area in low sand dunes along Lake Michigan, sec. 16, T41N, R5W, ca. 0.6 mi SE of Brevort River, 18 July 1995. *E. G. Voss 16509 with Eric Hellquist* (holotype: MICH!; isotypes: GH! MSC! UMBS!).

Cirsium pitcheri forma magenteum differt a forma typica corollis magenteis.

ADDITIONAL SPECIMENS EXAMINED (from the same locality): *Voss 16537 & Hellquist*, 16 July 1996 (MICH); *Voss 16730*, 11 July 2000 (MICH, WIS, NY, MIN).

Cirsium pitcheri is named for an eminent 19th century physician (see Voss 1978). Evidently Zina Pitcher discovered this thistle while stationed as an Army surgeon at Fort Brady, Sault Ste. Marie, 1826–1828. He later settled in Michigan and when the University was established in Ann Arbor the governor named him among its first regents. He served from 1837 until the post became elective in 1852. Always a scholar, Dr. Pitcher offered the motion to buy the first book for the University library—Audubon's *Birds of America* (at a bargain price of $970). He was chairman of a regents committee that brought in a favorable report on establishing a medical department in the University. So he is often looked upon as the founder of the University of Michigan Medical School, on whose faculty he served from 1852 until his death in 1872. The street approaching the Medical Center from the south is now happily named Zina Pitcher Place, and a large oil portrait of him (on loan from the Medical School) hangs in the library of the University of Michigan Herbarium. He was an avid botanist, accumulating a large herbarium, and other plants have been named for him. I have always admired his thistle, even without knowing of this exceptional color form (my personal bookplate, designed in 1952, features a sketch of it).

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